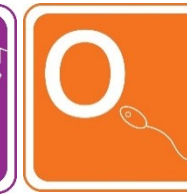
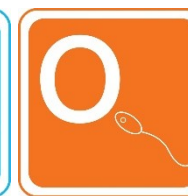
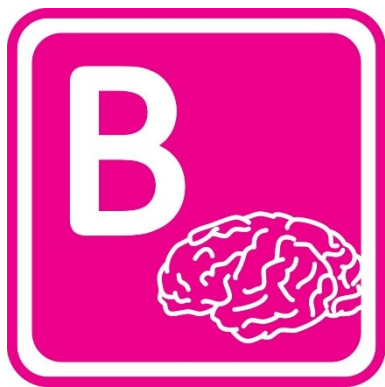




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- **antibiotics** are drugs used to treat bacterial infections
- microbiologists are the pathologists involved in the study and prevention of infectious diseases such as TB and MRSA



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B



- the **brain** is the organ involved in thinking, moving and memory
- **neuropathologists** are the pathologists who study diseases of the brain and nervous system



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- **cells** are the individual units from which tissues and organs are made
- **histopathologists** are the pathologists who diagnose disease by studying cells under the microscope



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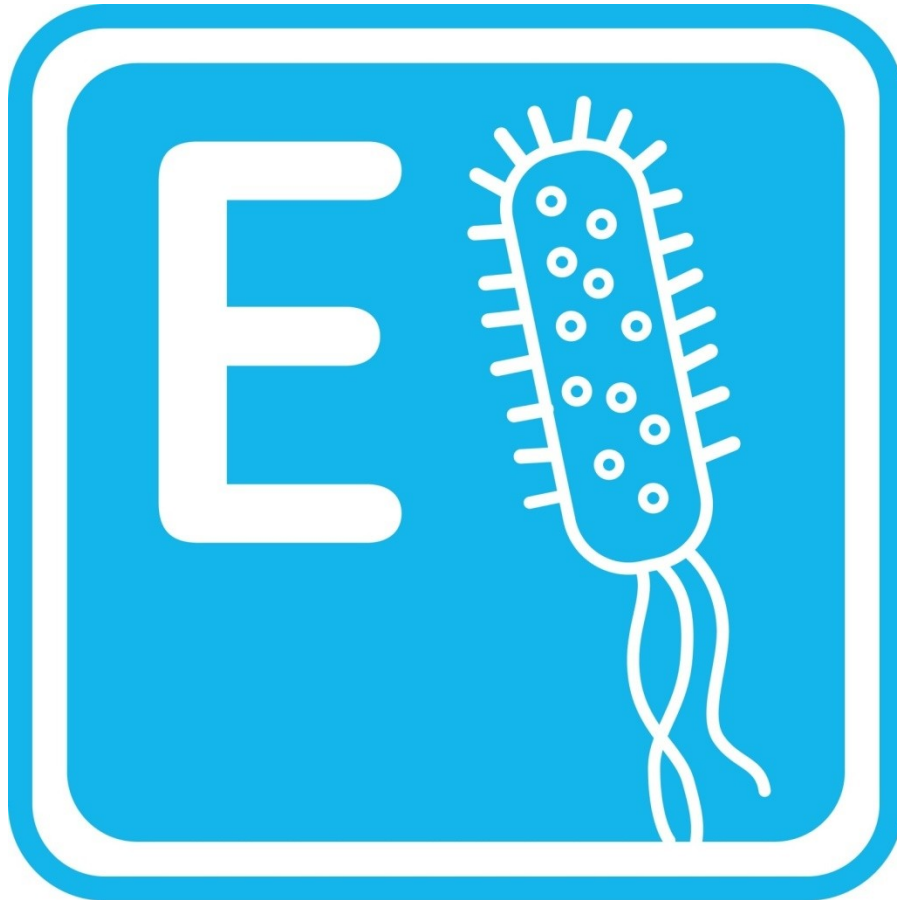


- **diabetes** is a condition that occurs when the body is unable to regulate the levels of sugar in the blood
- **clinical biochemists** are the scientists who measure levels of chemicals in the blood



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- **E.coli** is a bacterium normally found in the gut
- it can cause infections, such as food poisoning and urinary tract infections
- the young and old are particularly susceptible



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- **forensics** is the pathology specialty involved in the investigation of unlawful death
- fewer than 1% of pathologists work in this specialty – except on television!



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- this represents a molecule of **glucose**, the sugar that the body uses as fuel
- the level of glucose in the blood is regulated by the hormone insulin, which is produced in the pancreas



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- the **heart** beats over 3 billion times in an average lifetime
- heart disease is the most common cause of death in the UK
- risk factors for heart disease include smoking and high blood pressure



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- **immunisation** is a method used to strengthen the body's ability to fight diseases
- **immunology** is the pathology specialty involved in the study of the immune system



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- a **joint** is the site at which two or more bones come into contact
- pathologists sometimes examine the fluid or tissue from joints to diagnose disorders such as arthritis or gout



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- the **kidneys** have several important functions, including filtering out toxins, keeping water content in the body at the right level, and secreting important hormones.



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- some pathologists wear **lab coats** to protect their clothing while working in laboratories
- many pathologists work with patients on hospital wards and in outpatient clinics



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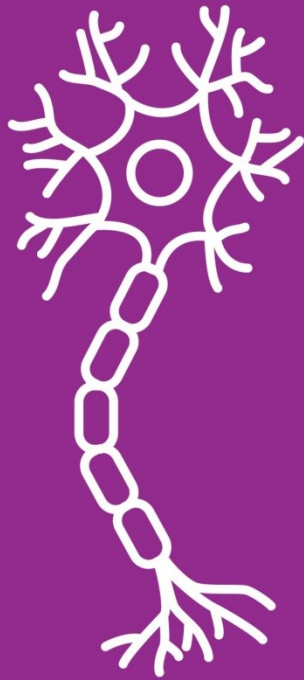
- a **microscope** is an instrument used to see objects that are too small to see with the naked eye, such as cells or bacteria
- it is one of the most important inventions in the history of pathology



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N



- a **neuron** is a specialised nerve cell
- electrical impulses pass along neurons from one part of the body to another
- nerves control our movement, sensation and even our breathing



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O



- an **ovum** (egg) is the female cell that contains half the genetic information needed to make a baby
- spermatozoa, the male sex cells, contain the other half of the information



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P

- pathology isn't just about diagnosing serious diseases, it also helps keep mothers and babies healthy
- women have several pathology tests during **pregnancy** and babies are tested after birth



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- one of the reasons why pathology is such an interesting career is that you never know what you're going to see next
- you need an enquiring mind to work in pathology



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- **red blood cells** are the main constituent of the blood and are responsible for its red colour
- **haematologists** specialise in the treatment of blood disorders.



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- the adult **skeleton** is made up of 206 bones and provides support and protection for the body's organs
- pathologists investigate disorders of the skeleton such as bone tumours or infections



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- blood **transfusion** is the pathology discipline that ensures that all transfusions are safe and that blood is available when and where it's needed
- 8,000 bags of blood are used in the UK every day



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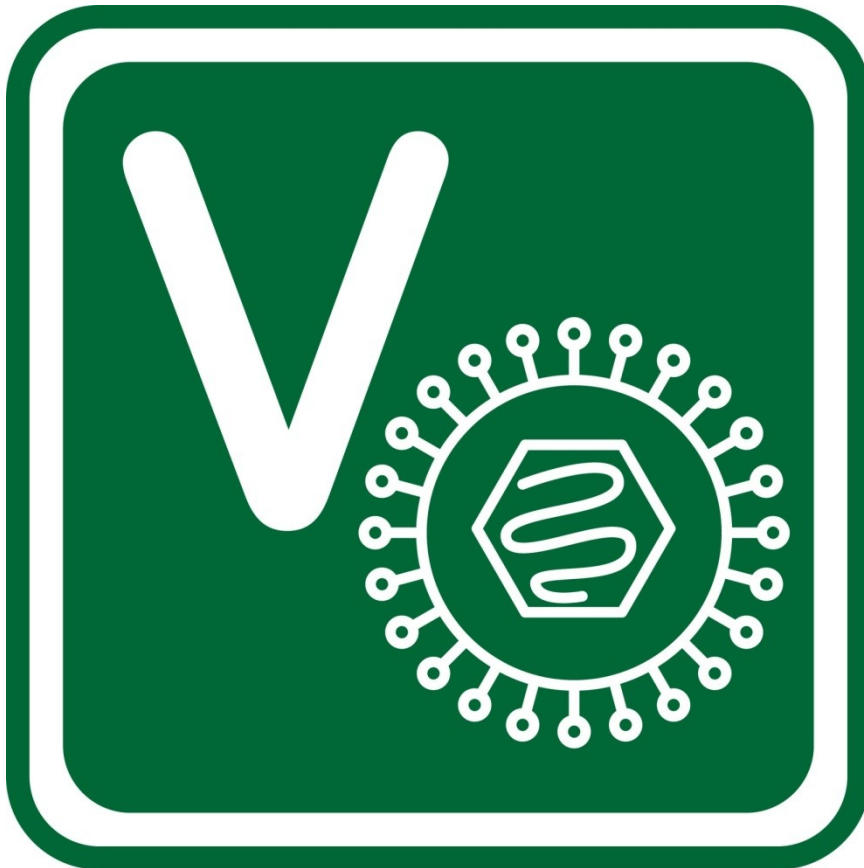


- the **uterus** is another name for the womb, the part of the female reproductive tract where babies grow
- **histopathologists** diagnose uterine diseases such as fibroids or tumours



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- **viruses** are among the smallest infectious organisms, much smaller than bacteria and invisible even with a standard microscope
- they are studied by **virologists**



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- there are several types of **white blood cells**, including neutrophils, eosinophils, macrophages and lymphocytes
- they make up about 1% of normal blood



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- **X-rays** are performed by non-pathologists (radiologists or radiographers) but can help pathologists make a diagnosis
- pathologists compare what they see under the microscope with x-rays



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- We all have two sex chromosomes, the genetic material that determines whether we're male or female
- men have an X and a **Y chromosome** (XY), women have two X chromosomes (XX)



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- when you visit the **zoo** you might not think about what happens to ill animals, but they need pathologists too!
- veterinary pathology covers all the same specialties as human pathology